

Island County COVID+ Cases Summary Report, March 2020

Background

On January 7, 2020 the World Health Organization (WHO) reported that Chinese officials announced they had identified a new virus belonging to the coronavirus family. The novel virus at that time was named 2019-nCoV. By January 31, the number of confirmed cases in China had jumped to 9,809, with Russia, Spain, Sweden and the United Kingdom all confirming their first cases of the virus. On January 22, the United States announced the first case of 2019-nCoV in Snohomish County, Washington. In February, the WHO announced that the new coronavirus would be called "COVID-19." On March 9, Island County reported its' own first case. (1) This report is a summary of case investigation findings for the month of March, 2020.

Methods

Across the state, all COVID19 positive (COVID19+) individuals (cases) are investigated to assess the clinical state of the case, the exposure timing and settings, and potential exposed contacts and sites. For March 2020, the Island County investigation team comprised five case investigators and one epidemiologist. All lab results, when testing for COVID19, and all data obtained as part of investigation are stored and maintained in the Washington State Disease Reporting System (WDRS). The database updates seven days a week with surveillance staff monitoring for new cases belonging to Island County. A detailed version of the methods can be found in Appendix B of this document.

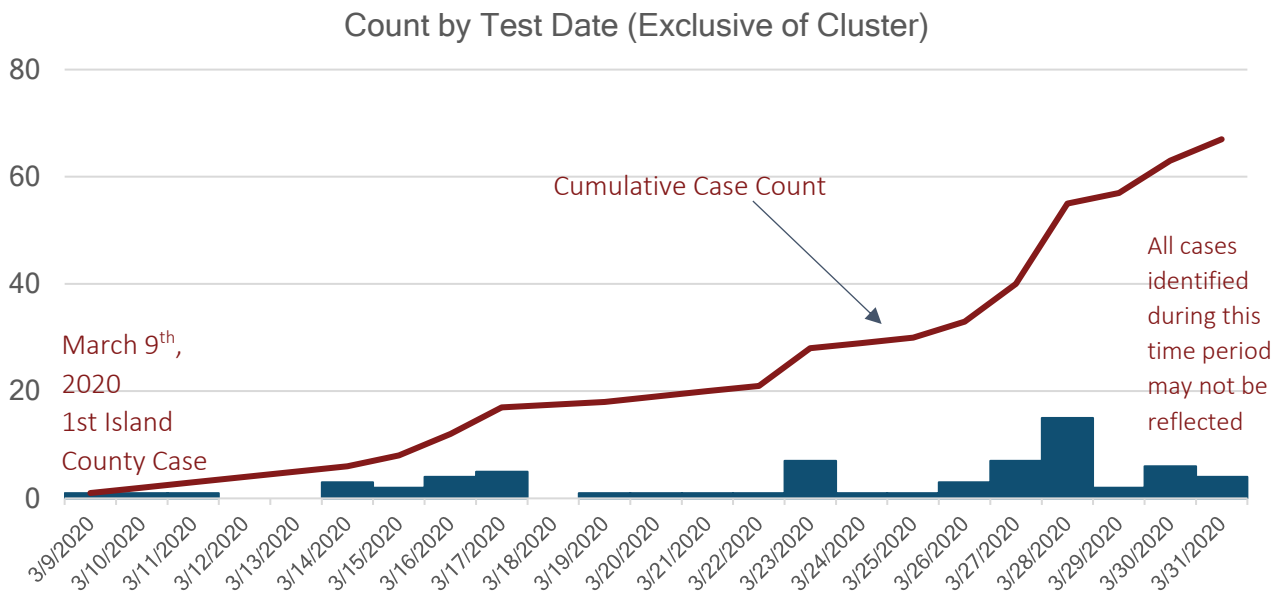
Data Limitations & Challenges

The methodology applied for COVID19 case investigation is an iterative approach and may change over time as part of continuous quality improvement. The information in this report is reflective of data as of April 3, 2020. This data only includes sample results for individuals tested for COVID19. Although the data is reported as accurately and completely as possible, updates to the data included in this report may take place based on new findings. Investigation takes place in collaboration with community partners across Island County. All Island County COVID+ residents identified in March 2020 may not be included in this report.

Findings

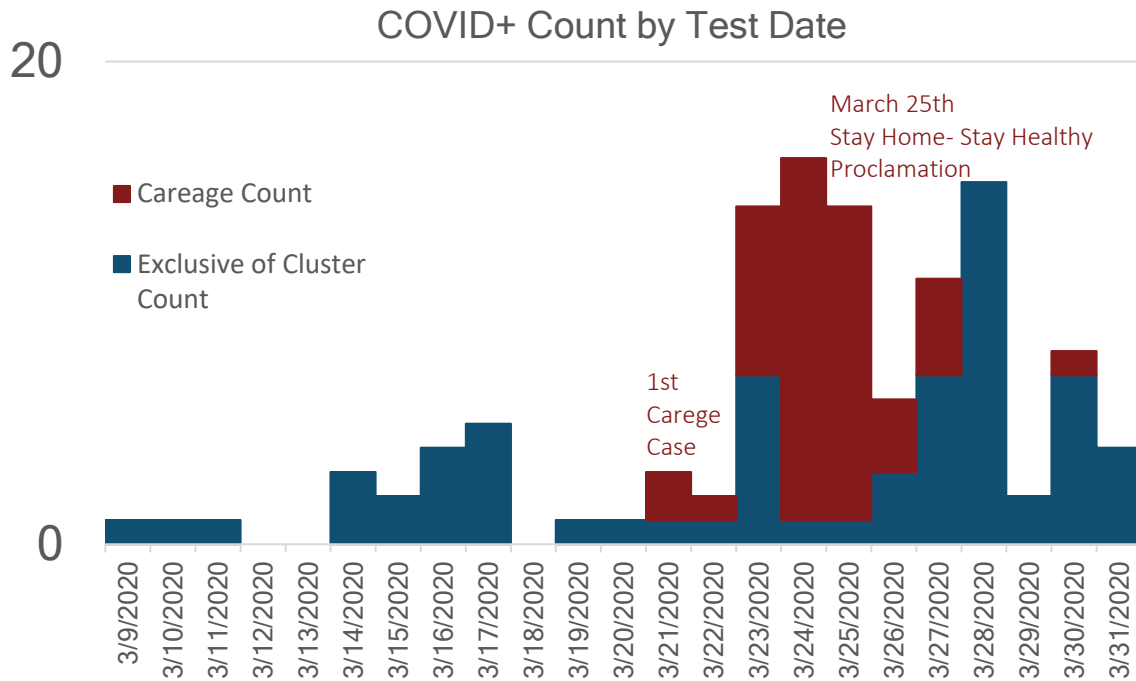
On March 9th, 2020, a University of Washington (UW) Lab reported to the Washington State Department of Health (DOH) and the WDRS database the first lab confirmed positive COVID19 case for Island County, followed by a second case on March 11, 2020. The first case is a male in his 50s with primary residency in Oak Harbor. From March 9th to March 31st, 114 COVID19+ cases were identified in Island County. On March 21 the first case of COVID19 in a long-term care facility was reported in a resident of Careage of Whidbey. Careage of Whidbey is located in Coupeville on Whidbey Island. This long-term care facility was identified as a cluster due to the number of patients and staff that tested positive. In the coming weeks, staff will produce a report on the findings from the Careage cluster investigation. (Appendix A: Table 1 & Table 2) (Figure 1)

Figure 1: Daily COVID19+ Case Count Exclusive of Careage Cluster, March 2020



The epidemiologic curve is a tool to track the outbreak of a disease. It visualizes positive cases and deaths over the progression of the outbreak. More cases or deaths over a short period of time creates a very steep curve, while a flat curve indicates fewer cases over more time. As an outbreak progresses, governments enact policies to help flatten the curve. One such policy is Governor Inslee’s “Stay Home, Stay Healthy” order. Figure 2 visualizes Island County’s epidemiologic curve for March 2020. (Figure 2)

Figure 2: Island County Epidemiological Curve by Careage Cluster Counts and Non-Careage Counts, March 2020



Across all cases in Island County, those cases who identify at birth as female represent 68% of the total cases over March 2020, compared to 32% in those who identify at birth as male. (Table 2)

Table 2: COVID19+ Cases Sex at Birth, March 2020

Sex	N	%
Female	77	68%
Male	37	32%
Grand Total	114	100%

For March 2020, age for all Island County COVID+ cases is evenly distributed across adult age groups. During the month of March only one positive case has been reported for the age band 19 years or younger. The other 113 cases are evenly distributed among the remaining four age bands, with 23% falling into the 20-39 age group, 26% falling into the 40-59 age group, 27% falling into the 60-79 age group, and 23% falling into the 80+ age group. (Table 3)

Table 3: COVID19+ Cases Age Groups, March 2020

Age Group	N	% of Cases
</=19	1	1%
20-39	26	23%
40-59	30	26%
60-79	31	27%
80+	26	23%
Total	114	100%

Although the Washington State COVID19 outbreak began in Snohomish County, the first COVID19+ case was identified as an Oak Harbor resident. Since March 9th, the distribution of identified positive cases had been varied with more of the cases, 48%, reported in Coupeville. This number is skewed due to the ongoing COVID19 outbreak at Careage of Whidbey. (Table 4)

Table 4: Geographic Location COVID19+ Cases in Island County, March 2020

Location	N	%
Camano Island	23	20%
Camano Island-Josephine	3	3%
Clinton	4	4%
Coupeville	9	8%
Coupeville-Careage of Whidbey	46	40%
Freeland	7	6%
Greenbank	1	1%
Langley	5	4%
Oak Harbor	16	14%
Grand Total	114	100%

When the data is examined with the exclusion of the LTC outbreak cases, the majority of cases are identified as residents of Camano Island (98282) with a rate of 158.28 cases per 100,000 residents.¹ (Table 5) (Figure 3)

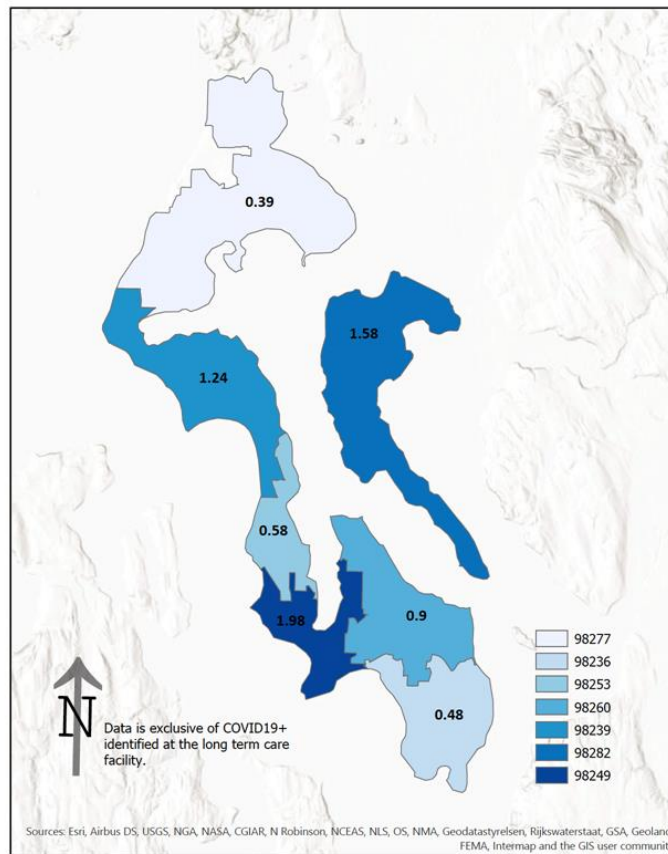
¹ Rates of 100,000 individuals is standard when reporting incidence rates because it allows for comparison across counties. For simplicity purposes, this report also includes rate per 1,000 individuals.

Table 5: Island County Rate of Positive Test Results Per 100,000 & 1,000 Residents by Zip Code- Exclusive of Careage Cluster, March 2020

Zip	N	Population	Rate per 100,000	Rate per 1,000
98236	3	6,245	48.04	0.48
98239	9	7,273	123.75	1.24
98249	8	4,040	198.02	1.98
98253	1	1,711	58.45	0.58
98260	5	5,577	89.65	0.90
98277	15	38,632	38.83	0.39
98282	26	16,427	158.28	1.58

Figure 3: Island County Rate of Positive Test Results per 1,000 Residents by Zip Code-Exclusive of Careage Cluster, March 2020

Rates of COVID19+ per 1000 Residents in Island County
March 2020



Once a case is identified in Island County, the case investigators interview the individual to confirm that the case meets the case definition. According to the CDC, the case definition is a statement consisting of the following three elements:

- 1: Specify if a person has met the conditions of a set of symptoms or identified as having the disease through laboratory findings;
- 2: The individual falls within the timeframe set forth by the case definition; and
- 3: That condition occurred after contact with another infected individual. (2)

According to the Washington State DOH, signs and symptoms that help identify if an individual meets the case definition include: fever, cough, and shortness of breath. As a part of the investigation process, the case investigators assess an individual's presenting symptoms. To date, 41 individuals reported a cough as the primary symptom, 45 individuals reported a fever as the primary symptom, 25 reported muscle pain, and 23 reported chills as the primary symptom. (Table 6)

Table 6: Reported Symptoms among Island County COVID19+ Cases, March 2020

Symptom	N
Cough	41
Fever	25
Muscle Pain	24
Chills	23

According to the WHO, individuals of all ages can be infected with COVID19. The most recent research does indicate that older individuals, and those with pre-existing medical conditions (such as asthma, diabetes, heart disease) appear to be more vulnerable to becoming severely ill with the virus. (3) For the cases identified in Island County in March 2020, the pre-existing condition most often reported during investigation is asthma with thirteen individuals reporting a current asthma diagnosis, followed by diabetes with ten individuals reporting a diabetes diagnosis, eight individuals reporting a current chronic heart disease diagnosis, and ten individuals reporting a chronic lung disease diagnosis. (Table 7)

Table 7: Reported pre-Existing Conditions among Island County COVID19+ Cases, March 2020

Pre-Existing Conditions	N
Asthma	13
Diabetic	10
Chronic Heart Disease	8
Chronic Lung Disease	10
Chronic Kidney Disease	4
Renal Failure	1

Appendix A:

Table 1: Daily COVID19+ Case Count Exclusive of Careage of Whidbey Cluster, March 2020

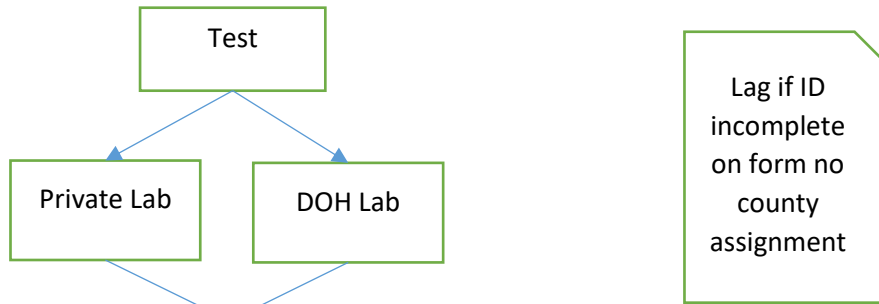
Date	N
3/9/2020	1
3/10/2020	1
3/11/2020	1
3/14/2020	3
3/15/2020	2
3/16/2020	4
3/17/2020	5
3/19/2020	1
3/20/2020	1
3/21/2020	1
3/22/2020	1
3/23/2020	7
3/24/2020	1
3/25/2020	1
3/26/2020	3
3/27/2020	7
3/28/2020	15
3/29/2020	2
3/30/2020	7
3/31/2020	4

Table 2: Daily COVID19+ Count Inclusive of Careage of Whidbey Cluster, March 2020

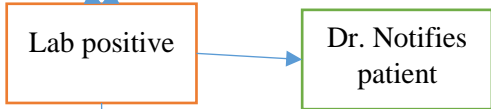
Date	N
3/9/2020	1
3/10/2020	1
3/11/2020	1
3/14/2020	3
3/15/2020	2
3/16/2020	4
3/17/2020	5
3/19/2020	1
3/20/2020	1
3/21/2020	3
3/22/2020	2
3/23/2020	14
3/24/2020	16
3/25/2020	14
3/26/2020	6
3/27/2020	11
3/28/2020	15
3/29/2020	2
3/30/2020	8
3/31/2020	4
Grand Total	114

Appendix B: Case Investigation Methodology, March 2020

Data Flow

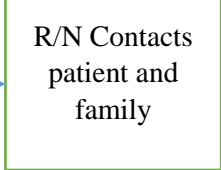
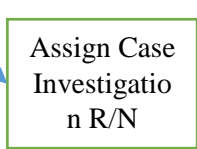
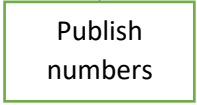
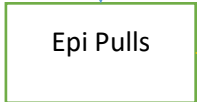
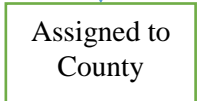


Lag if ID incomplete on form no county assignment



Case Investigation: by RN

- Confirms positive status, and patient situation from provider, then
- Asks patient about underlying conditions, possible exposure scenarios
- Asks patient about family members, transportation taken, locations visited
- Works with patient and family during quarantine period
- Follow up at end of quarantine period
- Case closed if recovered



Contact Investigation: by trained individual

- Works with those who may have had direct contact with family or patient
- Works with employer

References

1. **Regencia, Najjar, Aziz.** Coronavirus live updates. [Online] <https://www.aljazeera.com/news/2020/03/coronavirus-live-updates-italy-overtakes-china-death-toll-200319224219279.html>.
2. **King, Michael.** The CDC Field Epidemiology Manual. *Conducting a field interview*. [Online] Centers for Disease Control and Prevention. [Cited: March 31, 2020.]
3. **The World Health Organization.** Does the new coronavirus affect older people, or are younger people also susceptible? *The World Health Organization*. [Online] April 1, 2020.